



Comparing the Profile Characteristics for Evaluation of the Effectiveness of the Agri-business Incubators

Sushil Kumar¹, Rashmi Singh^{2*}, M. S. Nain² and Pramod Kumar³

¹Ph.D. Scholar ICAR-IARI & Indian Police Service, Rajasthan, India

^{2,3,5}Principal Scientist, ICAR-IARI, New Delhi ⁴Scientist, ICAR-IASRI, New Delhi, India

*Corresponding author email id: rashmi.iari@gmail.com

ARTICLE INFO

Keywords: Agri-business incubators, Effectiveness, Performance, Training

<http://doi.org/10.48165/IJEE.2022.58122>

ABSTRACT

The challenge faced by the incubators in India is finding good start-ups that solve the problems in the market or in value chain. A well-structured incubation program may lead the startup from idea generation stage to setting up the business and most crucial funding support. Analysis of effectiveness of training programme was done using primary as well as secondary data. Progress report of the institute and primary information from the trainees were matched to reach usefulness of the training programme. The primary data was collected during August, 2019 to January 2020 with partial structured pre-scheduled interview. For the ICAR-BPD trainees there was no substantial variation in age or land ownership, implying that the comparison on certain dimensions could be due to the training programme rather than underlying human attributes. The ICAR-BPD trainees were mainly attempting to obtain government employment and were often unaware of the training and other resources available to help them establish their own enterprise. Almost all of the trainees attributed their progress to the RUDSET Institute's EDP teaching.

INTRODUCTION

India is a vast nation with many diverse cultures, and India's traditional family size is huge. Farmers have suffered due to gradual land fragmentation, resulting in a significant reduction in land availability per capita. Due to this fragmented area, mechanised farming is not possible. Even if the number of such businesses has increased as a result of the creation of policies for medium small-scale entrepreneurs and other incentives by the Indian government, local concerns such as basic infrastructure remain a severe barrier. Although network of roads is developing but not connected to the places where agriculture is mainly practiced. Entrepreneurs play a critical role in society's economic growth. They are seen as precious assets and human resources with a great deal of potential that must be properly tapped in order to provide beneficial outcomes. Entrepreneurs share characteristics such as single-mindedness, drive, ambition, creativity, problem-solving, practicality, and goal-orientation. Personal characteristics of an agribusiness entrepreneur

have a big impact on the agribusiness (Gupta et al., 2019). Innovativeness, leadership ability, achievement motivation, decision making ability, risk orientation, management orientation, scientific orientation, competition orientation, critical thinking, resiliency, entrepreneurial self-efficacy, and locus of control were operationally defined as the cumulative outcome of twelve trait components (Bhaskar et al., 2019). Entrepreneurship should be fostered among youngsters in the farm and non-farm sectors to guarantee sustainable growth in the farm sectors and therefore a significant contribution to employment and economic growth (Kobba et al., 2020a). A step in the right direction is the RUDSETI model of entrepreneurship development training, which has been replicated across the country. Since the beginning of the training programmes, there have been frantic efforts to enhance the quality of the training programmes (Kobba et al., 2020b).

Business incubation is quickly becoming one of the most creative tools for assisting SME formation and development throughout the world. The process of a person or an organisation

assisting in the formation and growth of a startup is referred to as business incubation. In a nutshell, the objective of incubation is to improve the likelihood of a business's success. Agribusiness incubators not only help to commercialise technologies, but they also help to bridge the gap between farmers and development by providing necessary research and an avenue for feedback, which serves as the foundation for further innovation spread, as well as increasing the role of local government in farming. The incubators have a significant difficulty in securing funding to feed the nurturing process. This issue affected the longevity of the model and in absence of the basic support appropriate results could not be achieved (Tengeh & Choto, 2015). The non-acquaintance to the legal issues had a severe impact on his venture (Bagchi & Chatterjee 2017). A well-structured incubation program led the startup from idea generation stage to setting up the business and most crucial funding support. The challenge faced by the incubators in India is finding good start-ups that solve the problems in the market or in value chain (Srinivas et al., 2019). There is a need for comprehensive research work to be undertaken about the effectiveness and impact of various business incubation strategies undertaken in agriculture. It is also important to study in detail about the roles of various stakeholders and the challenges associated with the agribusiness incubation, so as to suggest measures for enhancing their performance. In the current context, agribusiness, which was not seen in previous years, is gaining relevance and beginning to expand. Various institutes are now offering agricultural management degrees with specialisation, which is expanding the youth's participation in agribusiness. With all of these factors in mind, an evaluation of the agri-business incubators' performance was conducted.

METHODOLOGY

The current inspection uses *ex-post facto* research design and was carried out by covering purposively three selected agri-business incubators of ICAR namely IARI, New Delhi; CIPHET, Ludhiana and NAARM, based on their performance scores (NAIP, ICAR Report, 2014). Besides these, one more business incubator viz. RUDSETI (Rural Development and Self-Employment Training

Institute, Gurugram) was studied to aid in useful comparison between the business incubators. A partial structured pre-scheduled interview was prepared especially for the trainees, non-trainees and also for all four incubation centres. Elaborated discussion and per person observation ways were also applied in order to collect the data primarily. Amongst the chosen evolution centres, 40 incubates/trainees were chosen with the help of simple random sampling technique. From the same institutes, 10 institutional stakeholders were also taken as respondents. Thus, a total of 160 incubates and 40 institutional stakeholders were selected as sample making it a total of 200 respondents as sample size. These were consulted and questioned for the data collection process being involved in the research. For the data being quantitative, SPSS 24 was applied for the analysis. In order to compare average, t test, and Mann Whitney U test was done.

RESULTS AND DISCUSSION

Effectiveness was measured through index developed for this purpose, covering the broad indicators of incubates perceptions regarding; timeliness of service delivery, quality of information, utility of service, efficiency of service, satisfaction of incubates etc.

From the Table 1 it was found that the mean age of ICAR-BPD trainees was 32.33 which was somewhat more than that of RUDSETI trainees i.e. 30.57 but there exists no significant difference in the age of the trainees from both the institutes. The land holding of ICAR-BPD trainees was 1.44 ha that is slightly more than that of RUDSETI trainees i.e. 1.26 but there exists no significant difference between them. There exists a significant difference in the annual income of the trainees. The annual income of RUDSETI trainees was Rs. 2.60 lakhs that was found to be more than that of ICAR-BPD trainees i.e. Rs. 2.14 lac. Mann-Whitney 'U' test was applied to test the profile characteristics of RUDSETI trainees and ICAR-BPD trainees, it was found that for formal sources of information, ICT sources of information, social valuation, entrepreneurial intention, perceived supports and barriers, achievement motivation, leadership, locus of control and passion for work, there occurred a significant difference between trainees

Table 1. Comparison of socio-economics and personal characteristics of trainees and non-trainees

Profile characteristics	RUDSETI trainees Mean (SD)	ICAR-BPD trainees Mean (SD)	Level of Significance (2-tailed)
<i>t'- tests</i>			
Age	30.57(7.26)	32.33(6.80)	0.441 ^{NS}
Land holding (ha)	1.26(1.21)	1.44(2.15)	0.551 ^{NS}
Annual income (lakh Rs.)	2.60(2.81)	2.14(1.65)	0.015*
<i>Mann-Whitney 'U' test</i>			
Education	3.83(1.21)	3.19(1.68)	0.676 ^{NS}
Informal sources of information	6.62(0.96)	6.57(0.99)	0.442 ^{NS}
Formal sources of information	8.02(2.76)	5.25(2.75)	0.035*
ICT sources of information	4.94(0.97)	3.09(1.28)	0.045*
Social valuation	11.43(2.67)	9.56(3.93)	0.049*
Entrepreneurial intention	41.01(6.26)	32.45(9.24)	0.018*
Entrepreneurial capacity	24.25(3.61)	16.92(6.22)	0.005**
Perceived supports and barriers	40.64(6.45)	34.18(9.29)	0.045*
Achievement motivation	13.489.43	10.01(2.14)	0.013*
Leadership	12.79(2.02)	10.01(2.63)	0.014*
Locus of control	13.30(1.45)	10.03(2.90)	0.024*
Passion for work	13.10(1.65)	10.72(2.90)	0.008**

Table 2. Comparison of psychological characteristics of trainees and non-trainees

Profile characteristics	RUDSETI trainees Mean (SD)	ICAR-BPD trainees Mean (SD)	Level of Significance (2-tailed)
<i>Mann-whitney 'U' test</i>			
Self-efficacy	12.62(2.04)	9.17(2.95)	0.014*
Innovativeness	12.03(2.22)	9.21(3.34)	0.016*
Risk taking ability	11.86(2.29)	10.01(2.96)	0.046*
Pro-activeness	11.37(2.60)	9.04(3.13)	0.016*
Resource mobilization	10.99(2.35)	9.05(3.44)	0.046*
Need for achievement	23.13(1.90)	20.49(2.68)	0.031*
Need for power	21.13(1.94)	18.55(3.57)	0.019*
Need for affiliation	20.26(2.01)	21.48(2.62)	0.075 ^{NS}

of both the institutes. The profile characteristics of RUDSETI trainees was found to be better but for education and informal sources of information no significant difference was found between them.

Mann-Whitney 'U' test was applied to test the profile characteristics of RUDSETI trainees and ICAR-BPD trainees and the data presented in the Table 2 reveals that for Self-efficacy the mean value of RUDSETI trainees was more than the mean value of and ICAR-BPD trainees. Significant difference was found in the self-efficacy between the trainees of both the institutes. For innovativeness the mean value of ICAR-BPD trainees was 12.03 which was more as compared to RUDSETI trainees. There existed a significant difference in the innovativeness among both institutes. The mean value showed that the risk taking ability of RUDSETI trainees was higher and significant difference was found in the risk taking ability. The RUDSETI trainees were more pro-active as compared to ICAR-BPD trainees. The Resource mobilization of RUDSETI trainees was more and significant difference was found. Need for achievement and need for power for RUDSETI trainees was found to be higher. But no significant difference was found for need for affiliation between RUDSETI trainees and ICAR-BPD trainees.

Secondary data showed that farm EDP trainees had a higher settlement ratio (79.19%) than non EDP trainees (64.57%) when the average production of all RUDSET institutes is considered. The key explanation for the higher farm EDP settlement ratio was that the majority of them were either recommended by a lending organisation to become eligible for a loan or were interested in their own enterprise and want to gain the necessary skills to raise their profits. ICAR-BPD and RUDSETI trainees who engaged in their own farm company prior to and after attending the EDP training were considered resolved. Often trainees are unable to organise these skills and end up working for a living. Although government departments used to offer incentives to various agricultural enterprises in order to support a specific market opportunity but, the bulk of incubation trainees settled without the assistance of a bank. The key explanation for this may be that they often seek to acquire skills (both soft and hard) in order to excel in their company/enterprise. The large number of trainees in these institutes were in the process EDP category (beauty salon governance, computer tally, mobile repairing, etc.), which generally did not require a large investment and were capable of being organised. This form of behaviour was observed, as both RUDSETI and ICAR- BPD trainees had a higher potential for resource mobilisation.

According to research reports, approximately 60 per cent of agriculture trainees experienced a medium degree of realistic usefulness of the training and a medium level of satisfaction, which might also be attributed to factors such as less practical experience, obtaining a certification and a loan as the primary goal of training, a shortage of different scenarios for doing practical, and so on. They were given actual hands-on experience useful in day-to-day dealing of enterprise, as well as enough time for hands-on experience to master the requisite skills under the guidance of the teacher during extended hours of study. Also whose key motivation for completing the training programme was to acquire the necessary skills but instead to obtain the certificate.

CONCLUSION

The trainees were characterized by the fact that there was no substantial variation in age or land ownership but they were found significantly different in terms of annual income. Trainees differed substantially in terms of formal sources of knowledge, ICT sources of information, social valuation, entrepreneurial aim, perceived supports and obstacles, achievement inspiration, leadership, locus of influence, and passion for work. The training for RUDSETI has encouraged the trainees to mould their behaviour in a desired direction to take up their own entrepreneurial venture. The ICAR-BPD trainees were mainly attempting to obtain government employment because their parents wanted their youngsters to work for the government. They were often unaware of the training and other resources available to help them establish their own enterprise. Almost all of the trainees attribute their progress to the RUDSET institute's EDP teaching. It can be concluding that the large difference in income between RUDSETI and ICAR-BPDs trainees could be due to the impact of the EDP training programme.

REFERENCES

- Bhaskar, M. U., Rao, M. S., & Gopal, P. V. S. (2019). Entrepreneurial behaviour of commercial floriculture nursery owners in Kadiyam of Andhra Pradesh, *Indian Journal of Extension Education*, 55(4), 1–6.
- Bhooshan, N., & Sharma, A. (2020). Rise of a new era: Strengthening of Indian agriculture by virtue of agribusiness incubation, *Indian Farming*, 70(1), 26–29.
- Gupta, R. K., Saha, A., Tiwari, P. K., Dhakre, D. S., & Gupta, A. (2019). Entrepreneurial behaviour of tribal dairy farmers in Balrampur District of northern hill region of Chhattisgarh, *Indian Journal of Extension Education*, 55(4), 25–30.

- Kadirvel, G., Gangmei, D. L., Banerjee, B. B., Assumi, S. R., Dkhar, S. E., & Mukharjee, A. (2020). Agri-business in north east India: Current status, potential ventures and strategies, *Current Journal of Applied Science and Technology*, 39(33), 74-85.
- Kalidas, K., & Mahendran, K. (2016). Review paper on business incubation – a way for sustainable entrepreneurship development, *International Journal of Business and General Management*, 5(4), 25-32.
- Kobba, F., Nain, M. S., Singh, R., Mishra, J. R., & Shitu, G. A. (2020a). Entrepreneurial Profile and Constraint Analysis of Farm and Non-farm Sectors Entrepreneurial Training Programmes in Krishi Vigyan Kendra and Rural Development & Self Employment Training Institute, *Indian Journal of Extension Education*, 56(3), 17–26.
- Kobba, F., Nain, M. S., Singh, R., Mishra, J. R., & Shitu, G. A. (2020b). Observational analysis of the effectiveness of entrepreneurship training programme in rural development and self employment training institutes, *Indian Journal of Extension Education*, 56(1), 13–17.
- Li, C., Ahmed, N., Qalati, S. A., Khan, A., & Naz, S. (2020). Role of business incubators as a tool for entrepreneurship development: The mediating and moderating role of business start-up and government regulations, *Sustainability*, 12, 1822
- Rizzi, D. I., Wescinski, J. V., Poli, O., & Jacoski, C. A. (2017). The importance of incubation processes from the perspective of incubated and graduated companies, *Journal of Information and Systems*, 14(2), 263-279.
- Singh, B. (2014). Technology based entrepreneurship in agriculture role of agribusiness incubators, *International Journal of Management and International Business Studies*, 4(3), 249-254.
- Stal, E., Andreassi, T., & Fujino, A. (2016). The role of university incubators in stimulating academic entrepreneurship, *IMR Innovation & Management Review*, 13, 89-98.
- Subash, S. P., Srinivas, K., Samuel, M. P., & Kalpana, S.R. (2016). Evolution of agribusiness incubation ecosystem in NARES for promoting agri-entrepreneurship, *Indian Journal of Agricultural Economics*, 71(3), 235-251.